

CLAIM AMENDMENTS

Claims 1-65 (Cancelled).

66. (Currently Amended) A medical system, comprising:
a plurality of electrodes configured to be placed adjacent heart tissue;
a controller configured for conditioning the electrodes to ~~perform a diagnostic or therapeutic procedure on~~ monitor physiological events within the heart tissue;
a display screen; and
a processor configured for displaying an image of the plurality of electrodes on the display screen and annotating the image with a binary map designator that identifies and marks an electrode based on the monitored physiological events.

67. (Cancelled) The medical system of claim 66, wherein the controller is further configured to monitor events during the procedure, and the designator identifies and marks an electrode based on the monitored events.

68. (Currently Amended) The medical system of claim ~~67~~ 66, wherein the designator identifies and marks an electrode wherein early depolarization of the heart tissue has occurred.

69. (Currently Amended) The medical system of claim ~~67~~ 66, wherein the designator identifies and marks an electrode where a sensed electrogram appears fractionated or broken in appearance.

70. (Currently Amended) The medical system of claim ~~67~~ 66, wherein the designator identifies and marks an electrode with a high pace mapping matching index.

71. (Currently Amended) The medical system of claim ~~67~~ 66, wherein the designator identifies and marks an electrode where arrhythmia entrainment was achieved.

72. (Previously Added) The medical system of claim 66, wherein the plurality of electrodes is carried by a single electrode structure.

73. (Previously Amended) A medical system, comprising:
an electrode structure having a plurality of electrodes configured to be placed adjacent heart tissue;

a controller configured for conditioning the electrode structure to perform a diagnostic or therapeutic procedure on the heart tissue;

a display screen; and

a processor configured for displaying an image of the electrode structure on the display screen and annotating the image with a binary map designator that identifies and marks an electrode of the electrode structure in response to entry of a coordinate of the electrode by a user.

74. (Currently Amended) A medical system, comprising:

a plurality of electrodes configured to be placed adjacent heart tissue;

a controller configured for conditioning the electrodes to perform a ~~diagnostic or therapeutic~~ mapping procedure on the heart tissue;

a display screen; and

a processor configured for displaying an image of the plurality of electrodes on the display screen and annotating the image with a binary map designator that identifies and marks an electrode as having a specific mapping function, wherein a pacing electrode within the plurality of electrodes can be distinguished from recording electrodes within the plurality of electrodes.

75. (Previously Added) The medical system of claim 74, wherein the specific function is pacing.

76. (Previously Added) The medical system of claim 74, wherein the specific function is recording.

77. (Currently Amended) A method of performing a medical procedure on a heart, comprising:

deploying a plurality of electrodes adjacent myocardial tissue;
~~performing a diagnostic or therapeutic procedure on the myocardial tissue;~~
monitoring diagnostic events within the myocardial tissue;
generating an image of the electrodes; and
and annotating the image with a binary map designator that identifies and marks an electrode
based on the monitored diagnostic events.

78. (Cancelled) The method of claim 77, further comprising monitoring events during the procedure, wherein the designator identifies and marks an electrode based on the monitored events.

79. (Currently Amended) The method of claim ~~78~~ 77, wherein the designator identifies and marks an electrode wherein early depolarization of the heart tissue has occurred.

80. (Currently Amended) The method of claim ~~78~~ 77, wherein the designator identifies and marks an electrode where a sensed electrogram appears fractionated or broken in appearance.

81. (Currently Amended) The method of claim ~~78~~ 77, wherein the designator identifies and marks an electrode with a high pace mapping matching index.

82. (Currently Amended) The method of claim ~~78~~ 77, wherein the designator identifies and marks an electrode where arrhythmia entrainment was achieved.

83. (Previously Added) The method of claim 77, wherein the plurality of electrodes is carried by a single electrode structure.

84. (Previously Amended) A method of performing a medical procedure on a heart, comprising:

- deploying an electrode structure having a plurality of electrodes adjacent myocardial tissue;
- performing a diagnostic or therapeutic procedure on the myocardial tissue;
- generating an image of the electrode structure; and
- and annotating the image with a binary map designator that identifies and marks an electrode of the electrode structure in response to entry of a coordinate of the electrode by a user.

85. (Currently Amended) A method of performing a medical procedure on a heart, comprising:

- deploying a plurality of electrodes adjacent myocardial tissue;
- performing a ~~diagnostic or therapeutic~~ mapping procedure on the myocardial tissue;
- generating an image of the electrodes; and
- and annotating the image with a binary map designator that identifies and marks an electrode as having a specific function, wherein a pacing electrode within the plurality of electrodes can be distinguished from recording electrodes within the plurality of electrodes.

86. (Previously Added) The method of claim 85, wherein the specific function is pacing.

87. (Previously Added) The method of claim 85, wherein the specific function is recording.